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23. The nucleic acid of claim 22, wherein said NH₂ regulatory domain comprises amino acids 1-360 of SEQ ID No:6, 1-360 of SEQ ID No:8, 1-365 of SEQ ID No:10, 1-630 of SEQ ID No:12, or 1-1337 of SEQ ID No:14.
24. The nucleic acid of claim 15, wherein said polypeptide is a fusion protein further comprising, in addition to said MEKK polypeptide, a second polypeptide sequence having an amino acid sequence unrelated to said MEKK nucleic acid sequence.
25. The nucleic acid of claim 24, wherein said fusion protein includes, as a second polypeptide sequence, a polypeptide which functions as a detectable label for detecting the presence of said fusion protein or as a matrix-binding domain for immobilizing said fusion protein.
26. The nucleic acid of claim 15, which nucleic acid hybridizes under stringent conditions to a nucleic acid probe having a sequence represented by at least 60 consecutive nucleotides of sense or antisense of one or more of SEQ ID Nos:5, 7, 9, 11, or 13.
27. The nucleic acid of claim 15, further comprising a transcriptional regulatory sequence operably linked to said nucleotide sequence so as to render said nucleic acid suitable for use as an expression vector.
28. An expression vector, capable of replicating in at least one of a prokaryotic cell and eukaryotic cell, comprising the nucleic acid of claim 15.
29. A host cell transfected with the expression vector of claim 28 and expressing said recombinant polypeptide.
30. A method of producing a recombinant MEKK polypeptide comprising culturing the cell of claim 29 in a cell culture medium to express said recombinant polypeptide and isolating said recombinant polypeptide from said cell culture.
31. A transgenic animal having cells which harbor a transgene encoding a MEKK polypeptide, which animals are vertebrates.
32. A transgenic animal having cells in which a gene for a MEKK is disrupted, which animals are vertebrates.

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33. A recombinant transfection system, comprising:
 - (i) a gene construct including the nucleic acid of claim 6 and operably linked to a transcriptional regulatory sequence for causing expression of said MEKK polypeptide in eukaryotic cells, and
 - (ii) a gene delivery composition for delivering said gene construct to a cell and causing the cell to be transfected with said gene construct.
34. The recombinant transfection system of claim 33, wherein the gene delivery composition is selected from a group consisting of a recombinant viral particle, a liposome, and a poly-cationic nucleic acid binding agent.
35. A nucleic acid composition comprising a substantially purified oligonucleotide, said oligonucleotide including a region of nucleotide sequence which hybridizes under stringent conditions to at least 25 consecutive nucleotides of sense or antisense sequence of a vertebrate MEKK gene.
36. The nucleic acid composition of claim 35, which oligonucleotide hybridizes under stringent conditions to at least 50 consecutive nucleotides of sense or antisense sequence of a vertebrate MEKK gene.
37. The nucleic acid composition of claim 36, wherein said oligonucleotide further comprises a label group attached thereto and able to be detected.
38. The nucleic acid composition of claim 37, wherein said oligonucleotide has at least one non-hydrolyzable bond between two adjacent nucleotide subunits.
39. A test kit for detecting cells which contain a MEKK mRNA transcript, comprising the nucleic acid composition of claim 37 for measuring, in a sample of cells, a level of nucleic acid encoding a MEKK protein.
40. A method for modulating one or more of growth, differentiation, or survival of a mammalian cell said cell possessing or engineered to possess MEKK substrates, comprising treating the cell with an effective amount of an agent which activates or inactivates MEKK polypeptide thereby altering, relative to the cell in the absence of the agent, at least one of (i) rate of growth, (ii) differentiation, or (iii) survival of the cell.

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